

**METHOD OF CONTROLLING LOCALIZED SHAPE OF A DATA  
HEAD AND FOR CHARACTERIZING THE SHAPE**

**ABSTRACT OF THE DISCLOSURE**

5       A method and apparatus are provided characterizing the shape of  
a surface such as a bearing surface on a slider and for processing the  
shape. The shape is characterized by fitting a curve having a desired  
shape to measurement data and then determining residual deviations  
from the desired shape within localized regions. The surface is  
10      processed by selecting a material stress pattern to be applied to a  
working surface of the slider based on measured and desired contour  
shape parameters in a plurality of localized areas on the bearing surface.  
The measured contour shape parameter within a first of the plurality of  
localized areas is weighted more heavily than those within the other  
15      localized areas.